DP Barcode: DXXXXXX MAID No.: 443074-28

**DATA EVALUATION RECORD**
**ACUTE CONTACT TOXICITY TEST WITH THE HONEY BEE**
**§ 141-1**

1. **CHEMICAL:** SAN836H (Diflufenzopyr) PC Code No.: 005107

2. **TEST MATERIAL:** San 836H Purity: 99.47%

3. **CITATION**
Authors: Collins, Maura K
Title: Acute Contact Toxicity With Honey Bees (Apis melifera) Under Static Conditions
Study Completion Date: September 30, 1995
Laboratory: Springborn Laboratories, Inc. .
Sponsor: Sandoz Agro, Inc.
Laboratory Report ID: 95-12-6251
MAID No.: 443074-28
DP Barcode:

4. **REVIEWED BY:** Fred Jenkins, Aquatic Biologist, ERBII, EFED

**Signature:** Fred Jenkins **Date:** 9/6/98

5. **APPROVED BY:** Mike Davy, Agronomist, ERBII, EFED

**Signature:** Michael Davy **Date:** 9-6-98

6. **STUDY PARAMETERS**

**Test Species:** *Apis mellifera*
**Age of Test Organisms at Test Initiation:** 5-10 days
**Exposure Duration:** 48 hours

7. **CONCLUSIONS:** $LD_{50}$ > 25 ug ai/bee
**Toxicity category:** Non Toxic
**Slope of Response:** N/A
**NOEL:** 25 ug ai/bee

8. **ADEQUACY OF THE STUDY**

A. **Classification:** Core

B. **Rationale:** The study meets the guideline criteria.

C. **Repairability:** N/A

9. **GUIDELINE DEVIATIONS:** N/A

10. **SUBMISSION PURPOSE:** Section 3 Registration

## 11. MATERIALS AND METHODS

### A. Test Organisms

| Guideline Criteria | Reported Information |
|---|---|
| **Species** | Honey Bee (*Apis mellifera L.*) |
| **Age at beginning of test** Worker bees of uniform age. | Yes |
| **Source** | Apiary Services, Inc. |
| **Were bees from disease-free colonies?** | Yes |
| **Were bees kept in conditions conforming to proper cultural practices?** | Yes |

### B. Test System

| Guideline Criteria | Reported Information |
|---|---|
| **Test Chambers** | Size: 12.7 x 12.7 x 12.7 cm. Material: Constructed from PCV sheet and is covered with a polyester mesh. |
| **Temperature during exposure** | Mean: 32 C<br>Range: 29 to 32 C |
| **Relative humidity during exposure** | Mean: 82%<br>Range: 82 to 88% |
| **Lighting** | Total Darkness |
| **Feeding** | Bees were fed a fresh mixture of 50% sucrose solution and distilled water daily. |

C. Test Design

| Guideline Criteria | Reported Information |
|---|---|
| Nominal dosage levels tested | 25 ug ai/bee |
| Number of bees exposed per dosage level | There was one treatment level with 12 bees/replicate. The number of replicates was not reported. |
| Other experimental design information | 12 bees/replicate chamber |
| Bees randomly or impartially assigned to test groups | Yes |
| Control | Yes |
| Solvent control | Dimelthylformide |
| Total observation period and frequency of interim observations | 48 hours |

12. REPORTED RESULTS

| Guideline Criteria | Reported Information |
|---|---|
| Quality assurance and GLP compliance statements were included in the report? | Yes |
| Observed adverse effects on bees at respective dosages | None |
| Control and Solvent Control Mortality | 0 % |
| Were raw data included? | Yes |

**Mortality and Observations**

| Experimental Group | Number Exposed | Number (Percent) Dead | Observations |
|---|---|---|---|
| Control | 36 | 0 | no sublethal effects |
| Treatment | 36 | 0 | no sublethal effects |
| | | | |
| | | | |

**Agency Statistical Analysis**

Based on the results of the study, the SAN 836H 48-hour $LD_{50}$ value for honey bees was empirically estimated to be > 25 ug A.E./bee, the highest maintained exposure level. A statistical analysis was not necessary.

Method Used: N/A
Results: N/A

**13. REVIEWER'S COMMENTS:**

The study was scientifically sound and met all required guideline criteria according to *The Hazard Evaluation Division Standard Evaluation Procedure for Honey Bee Acute $LD_{50}$ Test.*